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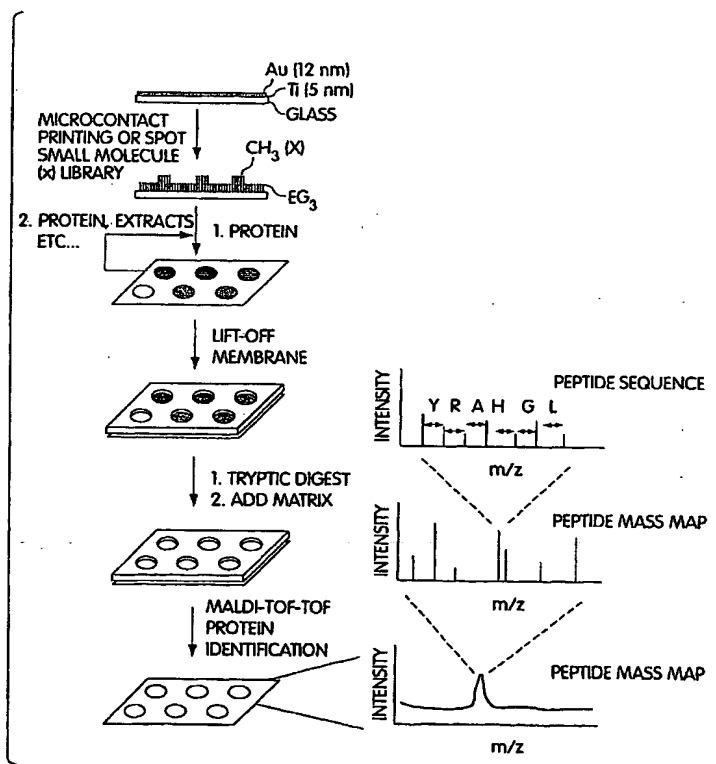
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(54) Title: DETERMINATION OF PROTEINS AND/OR OTHER MOLECULES USING MASS SPECTROSCOPY



(57) Abstract: This invention generally relates to the determination of species such as proteins and/or small molecules on self-assembled monolayers using mass spectrometry. In some cases, the proteins and/or small molecules may be arranged on a substrate in an array, for example, in a microarray. In one set of embodiments, the invention relates to methods for determining proteins and/or small molecules bound to self-assembled monolayers using mass spectrometry techniques such as MALDI and MALDI TOF techniques. This combination allows, for example, the systematic identification of unknown proteins from cell lysates. Identification of novel interactions can be achieved, in some cases, in instances where the binding partner to a particular target species is unknown. In another set of embodiments, the invention relates to methods of attaching a species to a self-assembled monolayer on a substrate such that the substrate can be used in a mass spectrometer, in some cases without requiring additional exposure of the substrate to water. For example, a target species may be detected and/or analysed using mass spectrometry in the presence of similar or "contaminating" species, without first removing the contaminating species.



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